

What is claimed is:

*pin assembly*  
*assembly*  
Sub ~~an~~ 1. A connector for connecting together the free pin end and the free box end of two tubular bodies, comprising:

5 a pin having pin threads formed externally on an end of a first tubular body, said pin threads extending from a starting point on said first tubular body and terminating adjacent the free pin end,

a box having box threads formed internally on an end of a second tubular body, said box threads extending from a starting point on said second tubular body and terminating adjacent the free box end,

10 said pin adapted to be received in and threadedly engaged within said box,

an external seal between said pin and said box adjacent said pin thread starting point and adjacent said free box end, said external seal comprising a pin seal surface formed externally of said pin on a third tubular body comprising a

15 metal seal base separately added to said first tubular body, and

an internal seal adjacent said box threads starting point and said free pin end whereby said pin threads and said box threads are confined between said external and internal seals when said pin and box are engaged.

6 2. The connector as defined in Claim 1 wherein said pin threads run  
20 out to an outside diameter of said first tubular at said starting point of said pin threads.

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67.5 (3.) A connector as defined in Claim 1 wherein said pin seal surface is formed on an annular metal ring secured to said first tubular body.

rel. to base

69.4 (4.) A connector as defined in Claim 1 wherein said pin seal surface is formed on a weld bead secured to said first tubular body.

rel. to base

5 G 5. A connector as defined in Claim 1 wherein said pin threads and said box threads are fully confined between said external and internal seals when said pin and box are engaged.

G 6. A connector for connecting together the free pin end and the free box end of two tubular bodies, comprising:

10 a pin having pin threads formed externally on an end of a first tubular body, said pin threads extending from a starting point on said first tubular body and terminating adjacent the free pin end,

a box having box threads formed internally on an end of a second tubular body, said box threads extending from a starting point on said second tubular body and terminating adjacent the free box end, said pin adapted to be received in and threadedly engaged with said box,

15 an external seal between said pin and said box adjacent said pin thread starting point and adjacent said free box end, said external seal comprising a separately constructed annular body of metal secured on said pin end of a  
20 tubular body, and

an internal seal adjacent said box threads starting point and said free pin end whereby said pin threads and said box threads are confined between said external and internal seals when said pin and box are engaged.

7. A connector as defined in Claim 6 wherein said body of metal is provided with a frustoconical seal surface adapted to engage a seal surface on said box end of a tubular body.

8. A connector as defined in Claim 6 wherein said body of metal is provided with a hemispherical cross-section to provide a line contact seal surface with said box end of a tubular body.

9. A connector as defined in Claim 6 wherein said external seal includes an annular elastomeric seal ring carried in an annular groove formed on said second tubular body.

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